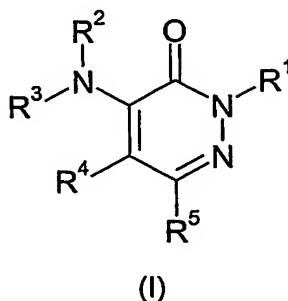


CLAIMS:

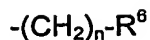
1. A pyridazinone derivative of formula (I)



wherein

10 R¹ represents:

- a hydrogen atom;
- a group selected from acyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl or dialkylcarbamoyl;
- an alkyl, alkenyl or alkynyl group, which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl or mono- or di-alkylcarbamoyl groups;
- an aryl or heteroaryl group which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylendioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, amino, nitro, cyano, mono- or di-alkylamino, acylamino, carbamoyl or mono- or di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- a saturated or unsaturated heterocyclic group which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylendioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, oxo, amino, nitro, cyano, mono- or di-alkylamino, acylamino, carbamoyl or mono- or di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- a group of formula



wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

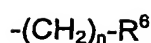
- a cycloalkyl or cycloalkenyl group;
- 5     • an aryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- or di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- 10    • or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- or di-alkylamino, nitro, cyano or trifluoromethyl groups;

15

R<sup>2</sup> represents:

- a hydrogen atom;
- a group selected from acyl, alkoxycarbonyl, carbamoyl, monoalkylcarbamoyl or dialkylcarbamoyl;
- 20    • an alkyl, alkenyl or alkynyl group, which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy, hydroxycarbonyl, alkoxycarbonyl, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, carbamoyl or mono- or di-alkylcarbamoyl groups;
- an aryl or heteroaryl group which is optionally substituted by one or more substituents
- 25    selected from halogen atoms and hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, amino, nitro, cyano, mono- or di-alkylamino, acylamino, carbamoyl or mono- or di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- a saturated or unsaturated heterocyclic group which is optionally substituted by one or
- 30    more substituents selected from halogen atoms and hydroxy, hydroxyalkyl, hydroxycarbonyl, alkoxy, alkylenedioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, oxo, amino, nitro, cyano, mono- or di-alkylamino, acylamino, carbamoyl or mono- or di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;

- a group of formula



5 wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- or di-alkylamino, nitro, acyl, hydroxycarbonyl, 10 alkoxy carbonyl, carbamoyl, mono- or di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, 15 alkylenedioxy, amino, mono- or di-alkylamino, nitro, cyano or trifluoromethyl groups;

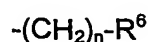
R<sup>3</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from:

- 20 • halogen atoms;
- alkyl and alkylene groups, which are optionally substituted by one or more substituents selected from halogen atoms and phenyl, hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxy carbonyl, carbamoyl or mono- or di-alkylcarbamoyl groups
- 25 • phenyl, hydroxy, hydroxyalkyl, alkoxy, cycloalkoxy, nitro, cyano, aryloxy, alkylthio, arylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl, acyl, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxy carbonyl, carbamoyl, mono- or di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulfonyl, mono- or di-alkylaminosulfonyl, difluoromethoxy or trifluoromethoxy 30 groups;

R<sup>4</sup> represents:

- a hydrogen atom;
- 35 • a hydroxy, alkoxy, amino, monoalkylamino, dialkylamino or cyano group;

- an alkyl, alkenyl or alkynyl group which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, acyloxy, alkoxy, aryloxy, alkylthio, arylthio, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, alkoxyimino, carbamoyl and mono- or di-alkylcarbamoyl groups;
- 5 • or a group of formula



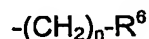
wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- 10 • a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- or di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- 15 • or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl, phenyl, alkoxyphenyl, halophenyl, pyridyl, alkoxycarbonyl, hydroxy, alkoxy,
- 20 alkylenedioxy, amino, mono- or di-alkylamino, nitro, cyano or trifluoromethyl groups;

R<sup>6</sup> represents a group -COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from:

- 25 • halogen atoms;
- alkyl and alkenyl groups, which are optionally substituted by one or more substituents selected from halogen atoms and phenyl, hydroxy, hydroxyalkyl, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl groups;
- 30 and
- phenyl, hydroxy, alkylenedioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl, amino, mono- or di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulfonyl, mono- or di-
- 35 alkylaminosulfonyl, cyano, difluoromethoxy or trifluoromethoxy groups;

- wherein R<sup>7</sup> represents an alkyl which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl groups or a group of formula



10 wherein n is an integer from 0 to 4 and R<sup>8</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- or di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl, phenyl, alkoxyphenyl, halophenyl, pyridyl, alkoxycarbonyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- or di-alkylamino, nitro, cyano or trifluoromethyl groups;

and their salts or N-oxides thereof

with the proviso that when R<sup>1</sup> is methyl, R<sup>2</sup> is H, and both R<sup>3</sup> and R<sup>5</sup> are phenyl then R<sup>4</sup> is not a 1-hydroxyethyl group.

2. A compound according to claim 1 wherein R<sup>1</sup> is selected from the group consisting of hydrogen atoms and alkyl groups, which are optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy, alkylthio, hydroxycarbonyl and alkoxycarbonyl groups
3. A compound according to claim 2 wherein R<sup>1</sup> is selected from the group consisting of unsubstituted C<sub>1-4</sub> alkyl groups.

4. A compound according to any preceding claim wherein  $R^2$  is selected from the group consisting of:
- hydrogen atoms,
  - 5 • an acyl group
  - an alkyl group, which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy and alkylthio groups
  - an aryl or heteroaryl group which are optionally substituted by one or more substituents selected from halogen atoms and hydroxy, hydroxyalkyl,
  - 10 hydroxycarbonyl, alkoxy, alkylendioxy, alkoxycarbonyl, aryloxy, acyl, acyloxy, alkylthio, arylthio, amino, nitro, cyano, mono- or di-alkylamino, acylamino, carbamoyl or mono- or di-alkylcarbamoyl, difluoromethyl, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- 15 5. A compound according to claim 4 wherein  $R^2$  is a hydrogen atom.
6. A compound according to any preceding claim wherein  $R^3$  represents a monocyclic or polycyclic, aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from:
- 20 • halogen atoms;
  - alkyl and alkylene groups, which are optionally substituted by one or more substituents selected from halogen atoms and phenyl, hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl or mono- or di-alkylcarbamoyl groups
  - 25 • phenyl, hydroxy, hydroxyalkyl, alkoxycarbonyl, alkoxy, cycloalkoxy, nitro, cyano, aryloxy, alkylthio, arylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl, acyl, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulfonyl, mono- or di-alkylaminosulfonyl, difluoromethoxy or trifluoromethoxy
  - 30 groups;
7. A compound according to claim 6 wherein  $R^3$  represents a monocyclic or polycyclic, aryl or heteroaryl group, which is optionally substituted by one substituent selected from halogen atoms, alkyl groups and hydroxycarbonyl groups.
- 35

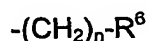
8. A compound according to claim 7 wherein R<sup>3</sup> represents a phenyl groups or a monocyclic or polycyclic N-containing heteroaryl group which groups may be substituted by one substituent selected from halogen atoms, alkyl groups and hydroxycarbonyl groups

5

9. A compound according to any preceding claim wherein R<sup>4</sup> represents:

- a hydrogen atom;
- a cyano group;
- 10 • an alkyl, alkenyl or alkynyl group which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, acyloxy, alkoxy, aryloxy, alkylthio, arylthio, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxy carbonyl, carbamoyl and mono- or di-alkylcarbamoyl groups;
- or a group of formula

15



20

wherein n is an integer from 0 to 4 and R<sup>6</sup> represents a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl, phenyl, alkoxyphenyl, halophenyl, pyridyl, alkoxy carbonyl, hydroxy, alkoxy, alkylendioxy, amino, mono- or di-alkylamino, nitro, cyano or trifluoromethyl groups;

25

10. A compound according to claim 9 wherein R<sup>4</sup> represents a hydrogen atom or a cyano group.

30

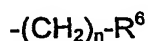
11. A compound according to any preceding claim wherein R<sup>5</sup> represents a group – COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from:

35

- halogen atoms;
- alkyl groups, which are optionally substituted by one or more substituents selected from halogen atoms and hydroxy, hydroxyalkyl, alkoxy, alkylthio, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxy carbonyl, carbamoyl, mono- or di-alkylcarbamoyl groups; and

- hydroxy, alkylenedioxy, alkoxy, cycloalkyloxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylsulfamoyl, amino, mono- or di-alkylamino, acylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, ureido, N'-alkylureido, N',N'-dialkylureido, alkylsulfamido, aminosulphonyl, mono- or di-alkylaminosulfonyl, cyano, difluoromethoxy or trifluoromethoxy groups;

wherein R<sup>7</sup> represents an alkyl group which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy, aryloxy, alkylthio, arylthio, oxo, amino, mono- or di-alkylamino, acylamino, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl groups or a group of formula



wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- or di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl, phenyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- or di-alkylamino, nitro, cyano or trifluoromethyl groups;

12. A compound according to claim 11 wherein R<sup>5</sup> represents a monocyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl groups.

13. A compound according to any preceding claim wherein R<sup>1</sup> is selected from the group consisting of hydrogen atoms and alkyl groups, which are optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy, alkylthio, arylthio, hydroxycarbonyl and alkoxycarbonyl groups and R<sup>2</sup> is selected from the group consisting of:



- hydrogen atoms,
- an acyl group
- an alkyl group, which is optionally substituted by one or more substituents selected from halogen atoms and hydroxy, alkoxy and alkylthio groups
- 5     • an aryl or heteroaryl group which are optionally substituted by one or more halogen atoms.

14. A compound according to claim 13 wherein R<sup>1</sup> is selected from the group consisting of unsubstituted C<sub>1-4</sub> alkyl groups and R<sup>2</sup> is a hydrogen atom.

10

15. A compound according to anyone of claims 13 to 14 wherein R<sup>3</sup> represents a monocyclic or polycyclic, aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from:

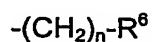
- halogen atoms;
- 15     • alkyl groups, which are optionally substituted by one or more substituents selected from halogen atoms and hydroxy groups
- cyano, hydroxycarbonyl groups;

16. A compound according to claim 15 wherein R<sup>3</sup> represents a phenyl group or a  
20     monocyclic or polycyclic N-containing heteroaryl group which groups may be substituted by one substituent selected from halogen atoms, alkyl groups and hydroxycarbonyl groups.

17. A compound according to anyone of claims 13 to 16 wherein R<sup>4</sup> represents:

25

- a hydrogen atom;
- a cyano group;
- an alkyl, alkenyl or alkynyl group which is optionally substituted by one or more substituents selected from halogen atoms and hydroxyl and alkoxy groups;
- 30     • or a group of formula



wherein n is 0 and R<sup>6</sup> represents a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl and phenyl groups

5

18. A compound according to claim 17 wherein R<sup>4</sup> represents a hydrogen atom or a cyano group.

10

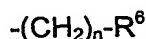
19. A compound according to anyone of claims 13 to 18 wherein R<sup>5</sup> represents a group – COOR<sup>7</sup> or a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from:

15

- halogen atoms;
- alkyl groups, which are optionally substituted by one or more substituents selected from halogen atoms and hydroxyl and alkoxy groups;
- alkoxy, alkoxycarbonyl and hydroxycarbonyl groups;

wherein R<sup>7</sup> represents an alkyl group which is optionally substituted by one or more substituents selected from halogen atoms and hydroxyl and alkoxy groups or a group of formula

20



wherein n is an integer from 0 to 4 and R<sup>6</sup> represents:

25

- a cycloalkyl or cycloalkenyl group;
- an aryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl, hydroxy, alkoxy, alkylenedioxy, alkylthio, amino, mono- or di-alkylamino, nitro, acyl, hydroxycarbonyl, alkoxycarbonyl, carbamoyl, mono- or di-alkylcarbamoyl, cyano, trifluoromethyl, difluoromethoxy or trifluoromethoxy groups;
- or a 3- to 7-membered ring comprising from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one or more substituents selected from halogen atoms and alkyl, phenyl, hydroxy, alkoxy, alkylenedioxy, amino, mono- or di-alkylamino, nitro, cyano or trifluoromethyl groups;

35

20. A compound according to claim 19 wherein R<sup>5</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from:

- halogen atoms;
- alkyl groups, which are optionally substituted by one or more substituents selected from halogen atoms and hydroxyl and alkoxy groups; and
- alkoxy groups

21. A compound according to claim 20 wherein R<sup>5</sup> represents a monocyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl groups.

22. A compound according to any preceding claim wherein R<sup>1</sup> represents an alkyl group, R<sup>2</sup> represents a hydrogen atom or a group selected from acyl, alkyl, aryl or heteroaryl groups which are optionally substituted by one or more halogen atoms, R<sup>3</sup> represents a monocyclic or polycyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from halogen atoms, cyano, hydroxycarbonyl and alkyl groups, which are optionally substituted by one or more hydroxy groups, R<sup>4</sup> represents a hydrogen atom, a cyano group, an alkyl or alkenyl group which are optionally substituted by one substituent selected from hydroxyl and alkoxy groups or a group of formula (-R<sup>6</sup>) wherein R<sup>6</sup> represents a 4- to 6-membered ring comprising from 1 to 3 heteroatoms selected from nitrogen, oxygen and sulphur, which ring is optionally substituted by one substituent selected from alkyl and phenyl groups and R<sup>5</sup> represents a monocyclic aryl or heteroaryl group, which is optionally substituted by one substituent selected from halogen atoms, alkyl and alkoxy groups;

23. A compound according to any preceding claim wherein R<sup>1</sup> is selected from the group consisting of unsubstituted C<sub>1-4</sub> alkyl groups; R<sup>2</sup> is a hydrogen atom; R<sup>3</sup> represents a phenyl group or a monocyclic or polycyclic N-containing heteroaryl group which groups may be substituted by one substituent selected from halogen atoms, alkyl groups and hydroxycarbonyl groups; R<sup>4</sup> represents a hydrogen atom or a cyano group and R<sup>5</sup> represents a monocyclic aryl or heteroaryl group, which is optionally substituted by one or more substituents selected from halogen atoms and alkyl groups.

24: A compound according to claim 1 which is one of:

- 4-[(3-chlorophenyl)amino]-2-ethyl-5-(1-hydroxyethyl)-6-phenylpyridazin-3(2H)-one
- 5 4-[(3-chlorophenyl)amino]-2-ethyl-5-(1-methoxyethyl)-6-phenylpyridazin-3(2H)-one
- 4-[(3-chlorophenyl)amino]-2-ethyl-6-phenyl-5-vinylpyridazin-3(2H)-one
- 4-anilino-2,5-diethyl-6-phenylpyridazin-3(2H)-one
- 5-[(3-chlorophenyl)amino]-1-ethyl-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbaldehyde O-methyloxime
- 10 5-[(3-chlorophenyl)amino]-1-ethyl-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbonitrile
- 1-ethyl-5-[[4-(hydroxymethyl)phenyl]amino]-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbonitrile
- 1-ethyl-6-oxo-3-phenyl-5-[(3,4,5-trifluorophenyl)amino]-1,6-dihydropyridazine-4-carbonitrile
- 15 5-[(4-cyanophenyl)amino]-1-ethyl-6-oxo-3-phenyl-1,6-dihydropyridazine-4-carbonitrile
- 1-ethyl-3-(4-fluorophenyl)-5-[[4-(hydroxymethyl)phenyl]amino]-6-oxo-1,6-dihydropyridazine-4-carbonitrile
- 5-[(4-cyanophenyl)amino]-1-ethyl-3-(4-fluorophenyl)-6-oxo-1,6-dihydropyridazine-4-carbonitrile
- 20 1-ethyl-3-(4-fluorophenyl)-6-oxo-5-[(3,4,5-trifluorophenyl)amino]-1,6-dihydropyridazine-4-carbonitrile
- 1-ethyl-3-(4-fluorophenyl)-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazine-4-carbonitrile
- 1-ethyl-3-(3-fluorophenyl)-5-[[4-(hydroxymethyl)phenyl]amino]-6-oxo-1,6-dihydropyridazine-4-carbonitrile
- 25 5-[(4-cyanophenyl)amino]-1-ethyl-3-(3-fluorophenyl)-6-oxo-1,6-dihydropyridazine-4-carbonitrile
- 1-ethyl-3-(3-fluorophenyl)-6-oxo-5-[(3,4,5-trifluorophenyl)amino]-1,6-dihydropyridazine-4-carbonitrile
- 30 4-[(3-chlorophenyl)amino]-2-ethyl-5-(2-methyl-1,3-thiazol-4-yl)-6-phenylpyridazin-3(2H)-one
- 4-[(3-chlorophenyl)amino]-2-ethyl-6-phenyl-5-(2-phenyl-1,3-thiazol-4-yl)pyridazin-3(2H)-one
- 4-[(3-chlorophenyl)amino]-2-ethyl-5-(1-methyl-1H-pyrazol-5-yl)-6-phenylpyridazin-3(2H)-one
- 35

- 4-[[2-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl]amino]benzonitrile
- 2-ethyl-5-(5-methyl-1,3,4-oxadiazol-2-yl)-6-phenyl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one
- 5 4-[(3-chlorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
- 2-ethyl-4-[(3-fluorophenyl)amino]-6-phenylpyridazin-3(2H)-one
- 2-ethyl-4-(1-naphthylamino)-6-phenylpyridazin-3(2H)-one
- 2-ethyl-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
- 2-ethyl-6-phenyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
- 10 4-(diquinolin-5-ylamino)-2-ethyl-6-phenylpyridazin-3(2H)-one
- 4-[bis(3,4,5-trifluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
- 4-[bis(3,4-difluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
- 4-[(3,4-difluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
- 4-[(3-chloro-4-fluorophenyl)amino]-2-ethyl-6-phenylpyridazin-3(2H)-one
- 15 4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzonitrile
- 2-ethyl-4-[(1-oxidopyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one
- 2-ethyl-6-pyridin-3-yl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
- 2-ethyl-4-[(1-oxidoquinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one
- 2-ethyl-6-pyridin-4-yl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one
- 20 2-ethyl-4-(isoquinolin-4-ylamino)-6-phenylpyridazin-3(2H)-one
- 2-ethyl-6-phenyl-4-[(3,4,5-trifluorophenyl)amino]pyridazin-3(2H)-one
- 2-ethyl-4-[(4-fluorophenyl)amino]-6-phenylpyridazin-3(2H)-one
- 2-ethyl-6-pyridin-3-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
- 2-methyl-6-pyridin-3-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
- 25 2-ethyl-6-pyridin-4-yl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one
- 2-ethyl-4-[[4-(hydroxymethyl)phenyl]amino]-6-phenylpyridazin-3(2H)-one
- 4-[(2-methyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile
- 4-[(2-ethyl-3-oxo-6-pyridin-3-yl-2,3-dihydropyridazin-4-yl)amino]benzoate
- methyl 4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzoate
- 30 4-[[2-ethyl-6-(1-oxidopyridin-3-yl)-3-oxo-2,3-dihydropyridazin-4-yl]amino]benzonitrile
- 2-ethyl-4-(isoquinolin-4-ylamino)-6-pyridin-3-ylpyridazin-3(2H)-one
- 2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-3-ylpyridazin-3(2H)-one
- 2-ethyl-4-(isoquinolin-4-ylamino)-6-pyridin-4-ylpyridazin-3(2H)-one
- 4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzoic acid
- 35 2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-pyridin-4-ylpyridazin-3(2H)-one

- 4-[(2-ethyl-3-oxo-6-pyridin-4-yl-2,3-dihydropyridazin-4-yl)amino]benzonitrile  
4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)(methyl)amino]benzonitrile  
N-(4-cyanophenyl)-N-(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)acetamide  
6-(3-chlorophenyl)-2-ethyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one  
5 2-ethyl-4-[methyl(quinolin-5-yl)amino]-6-phenylpyridazin-3(2H)-one  
6-(3-chlorophenyl)-2-ethyl-4-(isoquinolin-4-ylamino)pyridazin-3(2H)-one  
N-(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)-N-quinolin-5-yl acetamide  
2-Ethyl-4-(4-hydroxymethyl-phenylamino)-6-pyridin-3-ylpyridazin-3(2H)-one  
2-ethyl-4-(isoquinolin-4-ylamino)-6-(4-methoxyphenyl)pyridazin-3(2H)-one  
10 2-ethyl-6-(4-methoxyphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one  
4-anilino-2-ethyl-6-phenylpyridazin-3(2H)-one  
2-ethyl-6-(4-methylphenyl)-4-(quinolin-5-ylamino)pyridazin-3(2H)-one  
2-ethyl-6-(4-methylphenyl)-4-[(1-oxidoquinolin-5-yl)amino]pyridazin-3(2H)-one  
2-Ethyl-6-phenyl-4-(thieno[2,3-c]pyridin-3-ylamino)pyridazin-3(2H)-one  
15 1-Ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazine-4-carbonitrile  
1-Ethyl-3-(3-methylphenyl)-6-oxo-5-(pyridin-3-ylamino)-1,6-dihydropyridazine-4-carbonitrile  
2-Ethyl-5-(1-hydroxyethyl)-6-phenyl-4-(quinolin-5-ylamino)pyridazin-3(2H)-one  
2-Ethyl-6-(4-methylphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one  
20 2-Ethyl-4-(isoquinolin-4-ylamino)-6-(4-methylphenyl)pyridazin-3(2H)-one  
2-Ethyl-6-(4-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one  
2-Ethyl-6-(3-methylphenyl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one  
2-Ethyl-4-(isoquinolin-4-ylamino)-6-(3-methylphenyl)pyridazin-3(2H)-one  
2-Ethyl-6-(3-methylphenyl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one  
25 4-[[2-Ethyl-6-(3-methylphenyl)-3-oxo-2,3-dihydropyridazin-4-yl]amino]benzoic acid  
2-Ethyl-6-(5-methylpyridin-3-yl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one  
2-Ethyl-4-(isoquinolin-4-ylamino)-6-(5-methylpyridin-3-yl)pyridazin-3(2H)-one  
2-Ethyl-6-(5-methylpyridin-3-yl)-4-[(4-methylpyridin-3-yl)amino]pyridazin-3(2H)-one  
2-Ethyl-4-(1,7-naphthyridin-5-ylamino)-6-phenylpyridazin-3(2H)-one  
30 [1-Ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-4-yl]methyl acetate  
[1-Ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-4-yl]methyl butyrate  
2-Ethyl-5-[2-(4-methoxyphenyl)-1,3-thiazol-4-yl]-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one  
2-Ethyl-4-(isoquinolin-4-ylamino)-6-(6-methylpyridin-3-yl)pyridazin-3(2H)-one  
35 2-Ethyl-6-(6-methylpyridin-3-yl)-4-(pyridin-3-ylamino)pyridazin-3(2H)-one

2-Ethyl-5-[2-(4-methoxyphenyl)-1,3-thiazol-4-yl]-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one

2-Ethyl-6-phenyl-4-(pyridin-3-ylamino)-5-(2-pyridin-4-yl-1,3-thiazol-4-yl)pyridazin-3(2H)-one

5 Ethyl 4-[1-ethyl-6-oxo-3-phenyl-5-(pyridin-3-ylamino)-1,6-dihydropyridazin-4-yl]-1,3-thiazole-2-carboxylate

2-Ethyl-4-(isoquinolin-4-ylamino)-5-[2-(4-methoxyphenyl)-1,3-thiazol-4-yl]-6-phenylpyridazin-3(2H)-one

10 2-Ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenyl-5-(2-pyridin-4-yl-1,3-thiazol-4-yl)pyridazin-3(2H)-one

5-[2-(4-Chlorophenyl)-1,3-thiazol-4-yl]-2-ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one

5-[2-(4-Chlorophenyl)-1,3-thiazol-4-yl]-2-ethyl-6-phenyl-4-(pyridin-3-ylamino)pyridazin-3(2H)-one

15 5-[2-(4-Chlorophenyl)-1,3-thiazol-4-yl]-2-ethyl-4-(isoquinolin-4-ylamino)-6-phenylpyridazin-3(2H)-one

2-Ethyl-4-[(4-methylpyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one

2-Ethyl-4-[(4-methyl-1-oxidopyridin-3-yl)amino]-6-phenylpyridazin-3(2H)-one

Ethyl 4-[(2-ethyl-3-oxo-6-phenyl-2,3-dihydropyridazin-4-yl)amino]benzoate.

20

and pharmaceutically acceptable salts thereof.

25 25. A pharmaceutical composition comprising a compound according to any one of claims 1 to 24 in admixture with a pharmaceutically acceptable diluent or carrier.

26

26. Use of a compound according to any one of claims 1 to 24, in the manufacture of a medicament for the treatment or prevention of a pathological condition or disease susceptible to amelioration by inhibition of phosphodiesterase 4.

30

27. Use according to claim 26, wherein the medicament is for use in the treatment or prevention of a disorder which is asthma, chronic obstructive pulmonary disease, rheumatoid arthritis, atopic dermatitis, psoriasis or irritable bowel disease.

35

28. A method for treating a subject afflicted with a pathological condition or disease susceptible to amelioration by inhibition of phosphodiesterase 4, which method

comprises administering to the said subject an effective amount of a compound according to any of claims 1 to 24.

29. A method according to claim 28, wherein the pathological condition or disease is

5        asthma, chronic obstructive pulmonary disease, rheumatoid arthritis, atopic dermatitis, psoriasis or irritable bowel disease.

30. A combination product comprising:

- 10        (i)        a compound according to any one of claims 1 to 24; and  
          (ii)        another compound selected from (a) steroids, (b) immunosuppressive agents, (c) T-cell receptor blockers and (d) antiinflammatory drugs for simultaneous, separate or sequential use in the treatment of the human or animal body.